

### **REMARKS**

The Applicants and the undersigned thank Examiner Bui for a careful review of the present application. Consideration of this application is respectfully requested in view of the following remarks, which are responsive to the Official Action mailed September 22, 2005.

Upon entry of this Amendment, Claims 1-38 remain pending in the present application, with Claims 1, 19, 27, 34, and 38 being independent claims. The Examiner has rejected Claims 1-36. The Applicants have amended Claims 1-3, 5-19, 21-25, and 27-38 without adding new matter.

#### **I. Independent Claims 1, 27, and 36 and the claims dependent thereon are patentable over *Shaio***

The Examiner rejected independent Claims 1, 27, and 36 and respective dependent Claims 2-18, 28-33, and 37-38 under 35 U.S.C. § 102(b) based on an assertion that U.S. Patent Number 6,299,260 to *Shaio* (hereinafter “*Shaio*”) anticipates these claims. Applicants offer the following remarks to traverse the pending rejections.

##### **A. Claim 1**

As amended, Claim 1 is an independent claim defining a method to select an agent of a contact center to service a contact. Applicants respectfully submit that *Shaio* does not anticipate Claim 1, as the claim recites at least one feature that is not disclosed, not taught, and not suggested by *Shaio*. Moreover, Claim 1 recites a combination of features that *Shaio* does not disclose.

As amended, Claim 1 requires: a step of generating a first and a second performance indicator for each agent in a group of agents in response to computer-based processing of performance data; a step of computing a third performance indicator as a weighted combination of the first and second performance indicators; a step of comparing the third performance indicator of a first agent to the third performance indicator of a second agent; and a step of, in responsive to the comparing step, selecting the first agent to service a contact. *Shaio* does not disclose, teach, or suggest computing a performance indicator as a weighted combination of two other performance indicators in accordance with the recitations of amended Claim 1.

In contrast to computing a performance indicator as a weighted combination of two other performance indicators as recited by amended Claim 1, *Shaio* teaches using a single performance criterion for establishing an agent-selection order. More specifically, *Shaio* discloses generating multiple lists of agents, each list specifying an agent selection order based on a single performance criterion. A supervisor of the agents selects exactly one of *Shaio*'s lists for activation, and call routing proceeds according to the single active list that has been selected.

At column 2, lines 13-18 *Shaio* explains (emphasis added):

In another aspect, the invention features in general, selecting agents to handle incoming calls by maintaining a plurality of lists of quantitative selection values that correspond to different criteria for agent selection, and providing a means for the user to select which list, and thus which criterion, is employed in selecting agents. The criteria can include total sales made by each agent, an average time to handle each call by each agent, an agent performance rank assigned to each agent, and a waiting time list listing the amount of time each agent has been ready to receive a call.

In other words, *Shaio* discloses generating a first list that ranks agents according to a first criterion and a second list that ranks agents according to a second criterion. In *Shaio*, the supervisor of the agents selects either the first list or the second list, but not a combination of the two lists. *Shaio*'s call routing system then directs calls to agents according to the agent ranking of the selected list. *Shaio*'s lists are not based on a weighted combination of performance indicators.

For example, *Shaio* discloses generating four lists from which the supervisor can select a single list to use as a basis for choosing agents to receive incoming calls. The first list orders agents according to the single criterion of the length of time that each agent has been waiting to receive a call. The second list orders agents according to the single criterion of each agent's sales results. The third list orders agents according to the single criterion of a supervisor-assigned rank. The fourth list orders agents according to the single criterion of the speed with which each agent handles calls.

*Shaio* teaches that a supervisor can adjust the order of agents on an individual list by manually entering an offset to a listed agent's raw performance values. Similar to a golf

handicap, the offset can adjust the performance score of an inexperienced agent to help that agent receive an adequate share of calls. *Shaio*'s offsets are not weighted combinations of two performance indicators as required by the invention of amended Claim 1. See Shaio, Figures 4, 5, and 6; column 2, lines 3-35; and column 10, line 15 through column 11, line 20.

## **B. Claim 27**

As amended, independent Claim 27 defines a system for selecting a first agent over a second agent to perform a task in a contact center. The system comprises an agent performance monitor, a state monitor, and a ranking system. The agent performance monitor is operative to determine a first and a second indicator of agent performance for each of the first agent and the second agent. The state monitor is operative to determine the state of the contact center. The ranking system is operative to: compute a first index value for the first agent using the state and the first agent's first and second indicators of agent performance; compute a second index value for the second agent using the state and the second agent's first and second indicators of agent performance; and select the first agent based on a comparison between the first index value and the second index value.

There is no teaching, suggestion, or disclosure in *Shaio* of selecting a first agent over a second agent based on a comparison between respective index values computed using two indicators of agent performance per the requirements of amended Claim 27. The disclosure of *Shaio* contrasts with selecting agents using two indicators of agent performance. In such contrast and as discussed above with reference to Claim 1, *Shaio* discloses generating multiple agent lists, wherein each list ranks agents according to a single performance criterion, and wherein a supervisor selects one list at a time for call routing. See Shaio, Figures 4, 5, and 6; column 2, lines 3-35; and column 10, line 15 through column 11, line 20.

Furthermore, the invention of Claim 27, as amended, requires a combination of elements that *Shaio* fails to disclose. For example, amended Claim 27 requires a state monitor and recites computing index values for each of two agents using state and two indicators of agent performance.

### C. Claim 36

Amended Claim 36, which is an independent claim, defines a method to select an agent from a plurality of agents of a contact center to service a contact. The claim recites generating a plurality of performance indicators for each agent in the plurality of agents; computing an index for each agent in the plurality of agents using the generated plurality of performance indicators as computational inputs; and selecting a preferred agent to service the contact based on the computed indices.

As discussed above with reference to Claims 1 and 27, *Shaio* does not disclose selecting an agent to service a contact based on a plurality of performance indicators as required by the invention of Claim 36, as amended. In contrast to the invention of amended Claim 36, *Shaio* discloses selecting agents via a single performance criterion. See *Shaio*, Figures 4, 5, and 6; column 2, lines 3-35; and column 10, line 15 through column 11, line 20.

In summary, Applicants respectfully submit that *Shaio* fails to disclose the invention defined by amended Claim 1, 27, and 36 and that *Shaio*'s disclosure of generating multiple agent lists, each ranking agents according to a single performance criterion, contrasts with that invention. Accordingly, Applicants request that the Examiner withdraw the pending rejections of Claims 1, 27, and 36 and all claims dependent thereon.

## II. Independent Claims 19 and 34 and the claims dependent thereon are patentable over *Shaio*

The Examiner issued pending rejections under 35 U.S.C. § 102(b) of independent Claims 19 and 34 and their respective dependent claims, namely Claims 20-26 and 35, alleging that *Shaio* anticipates each of these claims. Applicants offer the following remarks to traverse those rejections.

### A. Claim 19

Claim 19, as amended, is an independent claim for a method to manage operational effectiveness in a contact center. The claim recites adjusting an operation of the contact center on the basis of an index that is a function of a first and a second indicator value. The first

indicator value represents performance that an agent achieved while processing contacts, and the second indicator value represents a result of testing the agent while the agent was detached from processing contacts. Applicants respectfully submit that *Shaio* does not anticipate amended Claim 19 because *Shaio* neither discloses, nor teaches, nor suggests the invention that the claim defines.

For example, *Shaio* does not disclose using an indicator value that represents a result of testing an agent while the agent was detached from processing contacts in accordance with the requirements of Claim 19, as amended. In contrast to using agent test results, *Shaio* discloses prioritizing agents according to each agent's availability, each agent's sales results, each agent's call processing speed, or a supervisor-assigned rank. That is, *Shaio* teaches using "quantitative agent performance values that are continuously updated by a monitoring system." Rather than conducting tests while the agent is detached from processing contacts, *Shaio*'s system monitors interaction between the agent and the contact while the agent is actively processing contacts. See *Shaio*, Figures 4 and 5; column 1, lines 18-25; column 2, lines 3-23; and column 10, lines 15-65.

In contrast to the recitations of amended Claim 19 of adjusting an operation on the basis of an index that is a function of two indicator values, *Shaio* discloses selecting agents to service callers based on a single performance criterion. More specifically and as discussed above with reference to Claims 1, 27, and 36, *Shaio* teaches creating multiple agent selection lists, each ranking agents according to a single criterion, wherein a supervisor selects one of the lists to implement for call routing. See *Shaio*, Figures 4, 5, and 6; column 2, lines 3-35; and column 10, line 15 through column 11, line 20.

#### **B. Claim 34**

Meanwhile, Claim 34, as amended, recites generating a performance indicator for each agent in a plurality of agents on the basis of a weighted combination of a performance measurement and a performance predictor. The performance measurement is produced in response to monitoring contact service episodes, and the performance predictor is produced in response to administering a test that evaluates at least one of an innate ability and a personality trait, in accordance with the claim's recitations.

As discussed above with reference to Claim 19, *Shaio* does not disclose administering a test. Furthermore, *Shaio* does not disclose, teach, or suggest evaluating an innate ability or a personality trait, either via a test or via any other methodology, in accordance with the requirements of amended Claim 34. In contrast to evaluating an innate ability or a personality trait, *Shaio* discloses handicapping inexperienced agents by providing them with a ranking offset so they receive an adequate share of calls. Applicants respectfully submit that an agent's level of experience is distinct from an innate ability or a personality trait. See *Shaio*, column 2, lines 24-35 and column 11, lines 1-8.

Additionally, as discussed above with reference to Claim 1, *Shaio*'s teachings of ranking agents according to a single criterion contrast with using a weighted combination of two criteria in accordance with the recitations of Claim 34, as amended.

In view of the foregoing, Applicants submit that *Shaio* fails to disclose the invention of amended Claims 19 and 34 and respectfully request withdrawal of the rejections of those independent claims and the claims that depend there from.

### **III. Dependent Claims 2-18, 20-26, 28-33, 35, 37, and 38 are patentable over *Shaio***

Each of dependent Claims 2-18, 20-26, 28-33, 35, 37, and 38 incorporates the recitations of the respective claim or claims from which it depends. In view of the above-described distinctions between the reference cited by the Examiner and independent Claims 1, 19, 27, 34, and 36, as amended, Applicants respectfully submit that dependent Claims 2-18, 20-26, 28-33, 35, 37, and 38, as amended, are patentable over *Shaio*. Furthermore, each of those dependent claims recites features and combinations of features further defining the present invention over the cited art. Accordingly, Applicants request separate and individual consideration of each dependent claim.

#### **A. *Shaio* does not disclose a computer-based test or a personality assessment**

As amended, Claim 17, which depends from Claim 1, recites a first performance indicator comprising a result of a personality assessment. Meanwhile, amended Claim 18, which

also depends from Claim 1, recites a first performance indicator that comprises a result of a computer-based test.

Applicants respectfully note that *Shaio* does not disclose, teach, or suggest a performance indicator that is a result of a personality assessment or a computer-based test. In contrast to the respective requirements of amended Claims 17 and 18, *Shaio* teaches “quantitative agent performance values that are continuously updated by a monitoring system. E.g., the total sales made by each agent can be monitored so that the call can be first directed to the agent making the most sales.” *Shaio*’s monitor does not conduct a computer-based test as required by the invention of amended Claim 18. See *Shaio*, column 2, lines 3-12.

In contrast to a performance indicator that comprises a result of a personality assessment as recited by amended Claim 17, *Shaio* teaches offsetting a performance criterion to compensate for a lack of experience. See *Shaio*, column 17, lines 1-8. Applicants respectfully note that a level of experience is distinct from a result of a personality assessment.

**B. *Shaio* does not disclose forecasting contact center state**

Dependent Claims 10, 11, and 25, as amended, each recites forecasting contact center state or alternatively a contact center state that comprises a forecast, neither of which is disclosed, suggested, or taught by *Shaio*. In contrast to forecasting contact center state, *Shaio* teaches selecting agents to handle incoming calls based on quantitative agent performance values as observed by a monitoring system. See *Shaio*, column 2, lines 3-12.

Thus, Applicants submit that, in addition to the reasons discussed above, each of amended Claims 10, 11, and 25 is distinguishable over *Shaio*. Accordingly, Applicants courteously request withdrawal of the pending rejections of those claims.

**C. *Shaio* does not disclose weighing one performance indicator more heavily than another performance indicator**

Dependent Claims 5, 6, 7, 15, 16, and 24, as amended, include recitations related to weighing performance indicators. For example, the invention of Claim 16 requires weighing a first performance indicator more heavily than a second performance indicator if revenue is

essentially below a threshold and weighing the second performance indicator more heavily than the first performance indicator if revenue is essentially above the threshold. Meanwhile, Claim 15 recites weighing a quality metric more heavily than a handling time metric if contact rate is essentially below a threshold. Claim 24 includes a recitation for weighing an indicator more heavily when contact center state is above a threshold than when the state is below the threshold.

As discussed above, *Shaio* does not disclose weighing or combining performance indicators. Moreover, *Shaio* fails to disclose weighing a performance indicator in a manner that depends on revenue, handling time, or state.

In view of the foregoing discussion about distinctions between the recitations of the pending dependent claims, as amended, and the cited art, Applicants submit that those dependent claims are allowable over that art. Accordingly, the Applicants respectfully request withdrawal of the Examiner's pending rejections of all the pending dependent claims.

#### **INFORMATION DISCLOSURE STATEMENT**

In an apparent oversight, two Information Disclosure Statements for U.S. Patent Application Number 10/645,917, filed on August 20, 2003 by Campbell, were attached to the present Official Action that was mailed September 22, 2005. Applicants of the present application ask the Examiner to please clarify whether those Information Disclosure Statements have any relation to the application under examination.

**CONCLUSION**

The foregoing is submitted as a full and complete response to the Official Action mailed September 22, 2005. Applicants thank Examiner Bui for consideration of the amendments and remarks presented by this paper. Applicants have shown that the pending claims are allowable and allowance of the claims is respectfully requested. It is believed that this response places the application in condition for allowance. Such action is courteously requested. If there are any issues that can be resolved with an Examiner's Amendment or a telephone conference, a telephone call to the undersigned at 404.572.3486 is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael Wach", written in a cursive style.

Michael L. Wach  
Reg. No. 54,517

King & Spalding LLP, 45<sup>th</sup> Floor  
191 Peachtree Street, N.E.  
Atlanta, Georgia 30303  
404.572.4600

K&S Docket: 07117.105015

4039643v2